

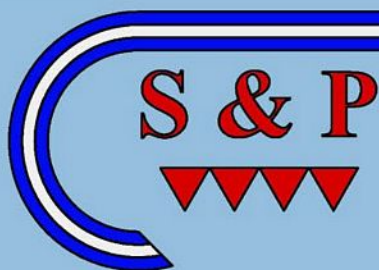


Committed to Excellence



Valtical Series

CNC Vertical Composite Grinder



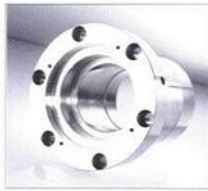
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A Perfect Combination of Efficiency and Accuracy



Vertical Internal & External Composite Grinder Exhibits Unmatched Grinding Performance!

The Valical CNC Vertical Internal & External Composite Grinder fully presents a new level of grinding technology. This grinder series not only greatly upgrades grinding accuracy (saving on your investment costs), but also saves on machine occupation space. It's the best choice for small lots flexible parts grinding and is also ideal for automated production lines.



Grinding Applications:

- Automotive and motorcycle parts.
- Machine parts.
- Various gears.
- Textile machine parts.
- Home appliance parts.



Built-in Type High Speed Wheel Spindle

- 9,000–30,000 RPM spindle speed is standard.
- 30,000–75,000 RPM spindle speed is optional.
- The grinding runs in ceramic angular contact ball bearings, featuring outstanding radial and axial loading capability, low heat growth at high speed running and long service life.



The Benefits of Our Vertical Grinder:

- No vibration and run-out caused by self-weights of the workpieces and chucks that may affect grinding accuracy.
- Irregularly shaped workpieces are easy to chuck.
- Non-symmetric part between inside hole and external shape can also be ground on inside hole and end face.

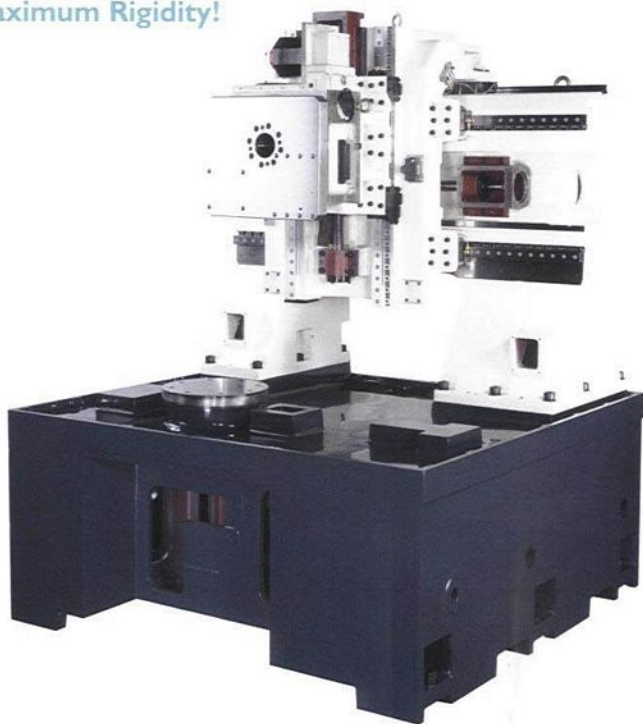
The New Innovation Design Internal & External Grinder

Integrating Multi-functions into One Now-Internal, End Face and External Grinding Can be Accomplished All at One Time!

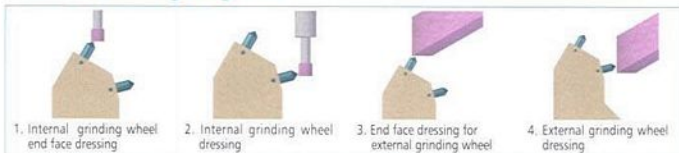


- Honeycomb type machine structure assures the best possible rigidity and stability.
- The machine structure is manufactured from high-quality Meehanite cast iron, heat treated and stress relieved for outstanding stability without deformation.
- X, Z-axis are equipped with special cross roller type linear guideways, featuring extra heavy loading capability.

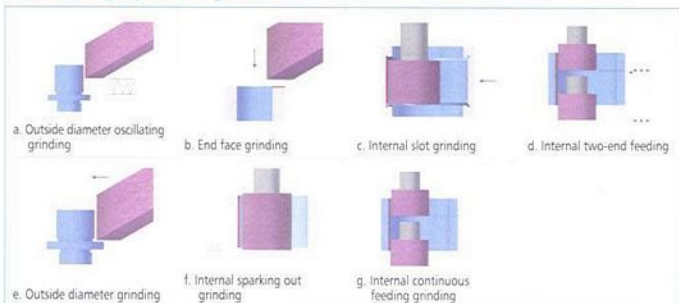
Optimal Structure Design Maximum Stability! Maximum Rigidity!



Wheel Dressing Diagrams



Grinding Cycle Diagrams



VIG series

Internal and End Face Grinding

VIG-1010

VIG-1015

VIG-2015

VIG-2020

VIG-E series

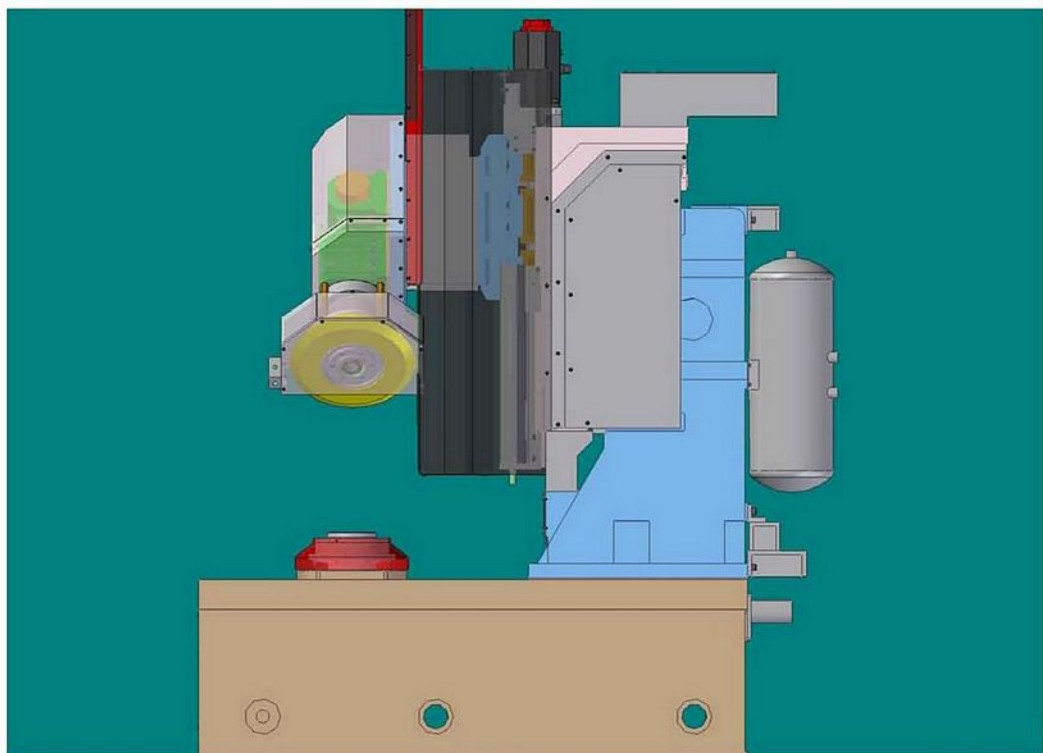
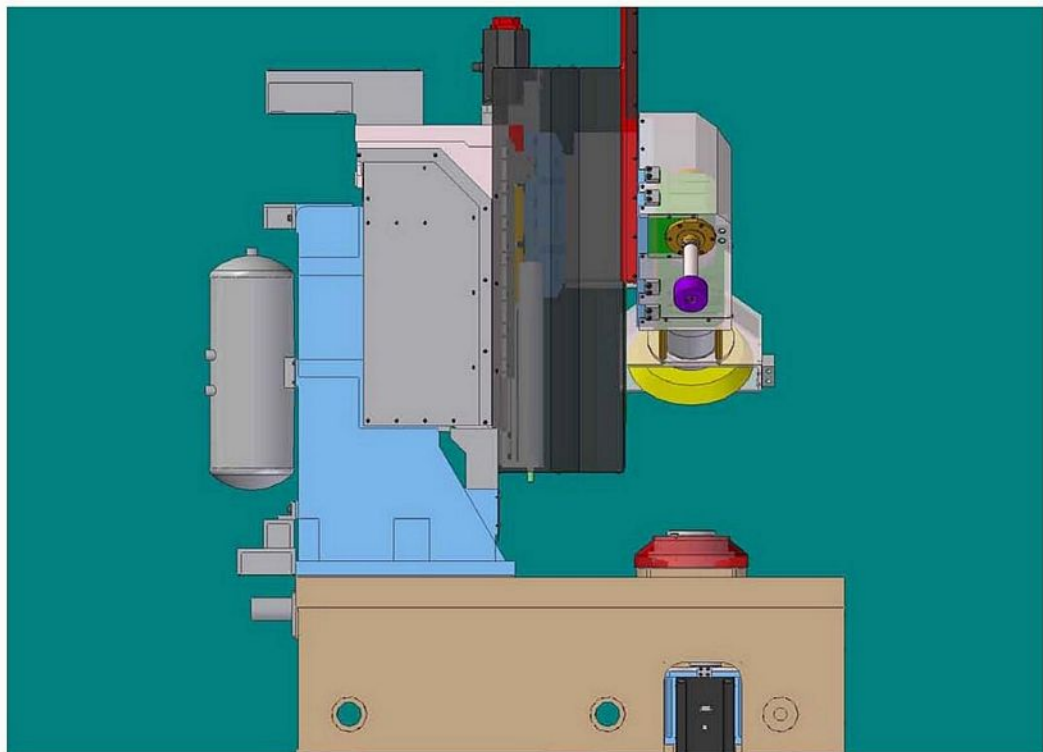
Internal, End Face and External Grinding

VIG-1010E

VIG-1015E

VIG-2015E

VIG-2020E





Valical
VIG-2015E



MACHINE SPECIFICATIONS

Specification	Model	VIG-1010/VIG-1010E	VIG-1015/VIG-1015E	VIG-2015/VIG-2015E	VIG-2020/VIG-2020E
CAPACITY	Internal grinding capacity	mm 9-100	9-100	14-200	14-200
	External grinding capacity	mm Max.100	Max.100	Max.200	Max.200
	Max. grinding length	mm 100	150	150	200
	Max. workpiece swing	mm Ø200	Ø200	Ø300	Ø300
	Max. workpiece length	mm 100	150	150	200
TRAVERSE	Max. workpiece loading capacity	kg 40	40	100	100
	X-axis longitudinal traverse	mm 400	400	500	500
INTERNAL GRINDING WHEEL	Z-axis vertical traverse	mm 300	400	400	500
	Internal grinding wheel speed	rpm 9,000-30,000(Opt.75,000)	9,000-30,000(Opt.75,000)	9,000-30,000(Opt.75,000)	9,000-30,000(Opt.75,000)
EXTERNAL GRINDING WHEEL (E series)	Internal grinding wheel diameter	mm Ø8-Ø75	Ø8-Ø75	Ø10-Ø95	Ø10-Ø95
	Max. linear speed	M/min 2,700	2,700	2,700	2,700
	External grinding wheel speed	rpm 2,000-4,000	2,000-4,000	2,000-4,000	2,000-4,000
WORK SPINDLE CHUCK	External grinding wheel diameter	mm Ø305x Ø50x127	Ø305x Ø50x127	Ø355x Ø50x127	Ø355x Ø50x127
	Max. linear speed	M/min 2,300	2,300	2,700	2,700
FEED	Work spindle speed	rpm 30-1000	30-1000	40-800	40-800
	Chuck size	mm 178	178	200	200
	X, Z-axis rapid traverse	M/min 6M	6M	6M	6M
	X, Z-axis cutting feed rate	mm/min 0-16,000	0-16,000	0-16,000	0-16,000
MOTORS	Min. setting unit on X, Z-axis	mm 0.001	0.001	0.001	0.001
	X, Z-axis slide ways	Linear ways	Linear ways	Linear ways	Linear ways
	Work spindle motor	kw 1.5	1.5	3.5	3.5
	Internal grinding motor	kw 3.0 Torque:S1=1.1Nm, S6=1.5Nm	3.0 Torque:S1=1.1Nm, S6=1.5Nm	3.0 Torque:S1=1.1Nm, S6=1.5Nm	3.0 Torque:S1=1.1Nm, S6=1.5Nm
	External grinding motor (E series)	kw 3.0 Torque:S1=15Nm, S6=20Nm	3.0 Torque:S1=15Nm, S6=20Nm	3.0 Torque:S1=15Nm, S6=20Nm	3.0 Torque:S1=15Nm, S6=20Nm
	Coolant pump motor	kw 0.75	0.75	0.75	0.75
	Hydraulic pump motor	kw 0.75	0.75	0.75	0.75
TANK CAPACITY	Lubrication system motor	w 20	20	20	20
	Coolant tank	L 140	140	140	140
	Hydraulic oil tank	L 20	20	20	20
POWER SUPPLY	Spindle oil coolant tank	L 15	15	15	15
	Power required	AC220V 32KVA	AC220V 32KVA	AC220V 32KVA	AC220V 32KVA
MACHINE DIMENSIONS	L x W x H	mm 2,100 x 1,800 x 2,500	2,100 x 1,800 x 2,600	2,300 x 1,800 x 2,700	2,300 x 1,800 x 2,800
	Machine weight	Kg 4,000	4,500	7,000	7,500
CONTROL	Control model	Mitsubishi Magic64			

* All specifications shown in this catalog are subject to change without prior notice.

STANDARD ACCESSORIES:

- Hydraulic system
- Coolant system
- Diamond dressing tool
- Fully enclosed splash guard
- Leveling pads
- Tool box
- Built-in type grinding wheel spindle (9,000 - 30,000RPM)
- X,Z-axis linear scale
- Mitsubishi conversational PC-NC control
- Coolant cooler on spindle device

OPTIONAL ACCESSORIES:

- Hydraulic 3-jaw chuck
- 3-jaw chuck
- Built-in type grinding wheel spindle (30,000 - 75,000 RPM)
- Rotary type dressing device
- Soft jaw turning device
- Oil mist collector
- Magnetic coolant separator
- Paper filter
- Coolant / Oil mist separator
- Auto. outside diameter measuring gauge
- Auto. inside diameter measuring gauge
- Gap anti-bump system



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